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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/210,055	12/11/1998	JOHN DAVID MILLER	884.055US1	6122

21186 7590 02/15/2002

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EXAMINER

HAVAN, THU THAO

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 02/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/210,055

Applicant(s)

MILLER, JOHN DAVID

Examiner

Thu-Thao Havan

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2672

DETAILED ACTION

Response to Amendment

Claims 1-20 are pending in the present application.

Response to Arguments

Applicant's arguments filed August 24, 2001 and request for reconsideration on January 23, 2002 have been fully considered. As addressed below, Bier et al. and Kajiwara et al. teach the claimed limitations.

In the present application the limitation "vector normal to a viewing surface" is defined in page 3, lines 11-14, as the transparency factor in one embodiment is a function of the angle of incidence formed by the intersection of the viewing surface normal vector with the object surface normal vector. Bier teaches a vector normal to a viewing surface (**col. 17, lines 56-67; col. 18; col. 19, lines 20-45; col. 20, lines 14-37; fig. 12-19, 22, and 25**). Bier teaches the anchor position of an object such as knowing the measurement of the rectangle corner underneath one, transparent command button. For example, figure 22 discloses the measurements of the viewpoint of the angles of an object then the angles are recorded and scaled. Furthermore, in figure 18, Brier teaches the transparency factor is disclosed by the rotation of the angles. Based on how the angle is rotated then the viewing is made possible to the users.

Claim Rejections - 35 USC § 103

Art Unit: 2672

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bier et al. (US patent no. 5,617,114) in view of Kajiwara (US patent no. 5,872,872).

1. As to claims 1, 5, 9-11, and 15-16, the prior art Bier had:

A.) A method comprising modulating the transparency of an image of an object (**col. 15, lines 42-67; fig. 4-11**). Bier teaches modulating the transparency of an image by the gradual passing of one click-through to another. The click-through buttons are transparent because the background images are still viewable when the buttons are on top of them.

B.) An object as a function of an angle of incidence of a vector normal to a viewing surface of the object (**col. 17, lines 56-67; col. 18, lines 1-5; col. 19, lines 20-45; col. 20, lines 14-37; fig. 12-19, 22, and 25**). Bier teaches the anchor position of an object such as knowing the measurement of the rectangle corner underneath one, transparent command button. For example, figure 22 discloses the measurements of the viewpoint of the angles of an object then the angles are recorded and scaled.

C.) A system comprising a display and an image of an object projected on the display (**col. 9, lines 8-54; fig. 2**). In figure 2, Bier clearly teaches a display image in his system.

Art Unit: 2672

D.) A system for controlling the transparency of an image of an object, the system comprising a display, a processor capable of driving the display with an image and a graphics engine capable of running on the processor (**col. 7, lines 18-67; col. 8-12; fig. 1-3, 36, and 38**). Bier teaches a computer system for the transparent button commands that includes parsers, which are executable instructions. The parser controls the system, which controls the transparency of an image of an object.

However, Bier fails to explicitly teach the step of calculating the transparency factor. Nonetheless, Bier teaches the transparency of the command buttons overlaying an image and scaling the angles of the command buttons. The command buttons are transparent therefore when Bier scales the angles then he is calculating the transparency factor. Both Bier and Kajiwara teaches the transparency factor for an image. The difference is that the transparency factor for Bier is the command buttons and for Kajiwara is the windows. Kajiwara generates a transparency factor for an image of an object when he discloses the transparent image areas (called windows) that are normally overlapped with the background images or with other windows. Furthermore, Kajiwara teaches the step of calculating the transparency factor of the windows when he discloses the calculating viewpoint of the transparent windows in his mathematical formulas. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the step of calculating the transparency factor because Kajiwara teaches the calculating of the overlapping and transparent windows (**col. 8, lines 41-67; col. 9-10; fig. 6-12**).

Art Unit: 2672

2. As to claims 2, 6, 12, and 17, Kajiwara discloses a cosine function (**col. 13, lines 20-52; col. 6-7; fig. 9-12**). In figures 10 to 11, Kajiwara teaches the functionality of a cosine function for the transparent windows.

3. As to claims 3, 7, 13, and 18, Kajiwara discloses a linear function (**col. 3, lines 14-67; col. 4; fig. 15**). Kajiwara discloses the linear calculation of the viewpoint coordinates for the transparent windows.

4. As to claims 4, 8, 14, and 19, Kajiwara discloses a non-linear function (**col. 8-15**). Kajiwara teaches the calculation of the matrix system in a non-linear formula.

Allowable Subject Matter

Claim 20 is allowed.

The following is an examiner's statement of reasons for allowance: Examiner searching for the steps of (1) assigning a function of $\theta - \pi$ to α if the mode is back_only and comparing α to zero and (2) a graphics engine capable of running on the processor, generating the image and modulating the transparency of the image as a cosine function of an angle of incidence of a vector normal to a viewing surface at the surface of the object, in combination with the other elements of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2672

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713.

Art Unit: 2672

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:


(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Thu-Thao Havan

February 13, 2002



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600